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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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KEITH JOHNSON, ESQ. TRANSGENOMIC, INC. 12325 EMMETT STREET OMAHA, NE 68164			SHEINBERG, MONIKA B	
			ART UNIT	PAPER NUMBER
			1634	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/873,645	TAYLOR ET AL.	
	Examiner	Art Unit	
	Monika B Sheinberg	1634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 11,12,17,18,23,24 and 27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,7-10,13-16,19-22,25 and 26 is/are rejected.
- 7) ☒ Claim(s) 16 is/are objected to.
- 8) ☒ Claim(s) 1-27 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input checked="" type="checkbox"/> Other: <i>Detailed Action</i> |

DETAILED ACTION**Election/Restrictions**

Applicant's election with traverse of Group I (claims 1-3 and 7-27), species A, in the response filed July 27, 2003 is acknowledged. The traversal is on the ground(s) that it would not be an "overly burdensome" search because all the claims "relate to the same concept of analysis of elution profile data" and that the "ability to sort data into individual categories should not render the invention subject to restriction" (page 4 lines 3-18, of the response). This is not found persuasive because the methods of each Group have different objectives, different uses, different reagents and different steps in methodology. For example, the method steps of Group I are directed completely to computational analysis for optimization of methods for analyzing electronic data whereas the method steps of Group II include sample hybridization and are directed to determining if and how many SNPs are in a fragment of DNA. The method steps of Group III include sequencing and are directed to comparative analysis between unknown and known profiles of DNA. Therefore searches for each group are not coextensive and would therefore be a burden upon the Examiner.

The requirement is still deemed proper and is therefore made FINAL.

Claims 4-6 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Claims 11, 12, 17, 18, 23, 24 and 27 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the response filed July 27, 2003. (Please note that both species of the restriction mailed: 15 May 2003, had a typographical error thereby improperly including claim 17 within both specie A and B; however in close review of the claim, limitations of claim 17 were directed to clustering as seen in specie B. Thus as a correction, specie A contains only claims 9, 10, 15, 16, 21, 22 and 26 wherein claims 1-3, 7, 8 13, 14, 19, 20 and 25 are generic.)

- Claims 1-3, 7-10, 13-16, 19-22, 25 and 26 are hereby examined.

Claims Rejected Under 35 U.S.C. § 101

35 U.S.C. § 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

• Claims 1-3, 7-10, 19-22, 25 and 26 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. The claimed invention is directed to the following non-statutory subject matter:

- “a method for transforming a plurality of chromatographic elution profiles” (claims 1-3, 7 and 8);
- “a method for grouping a plurality of transformed chromatographic elution profiles” (claims 9 and 10);
- “a computer readable medium for storing computer readable instructions, the instructions being capable of programming a computer to perform a method” (claims 19-22);
- “a plurality of transformed elution profiles” (claim 25); and
- a grouped “plurality of elution profiles” (claim 26).

M.P.E.P. section entitled “Nonstatutory Subject Matter” (pages 2100-12, Columns 1-2) states:

Claims to processes that do nothing more than solve mathematical problems or manipulate abstract ideas or concepts are more complex to analyze and are addressed below. If the “acts” of a claimed process manipulate only numbers, abstract concepts or ideas, or signals representing any of the foregoing, the acts are not being applied to appropriate subject matter. *Schrader*, 22 F.3d at 294-95, 30 U.S.P.Q.2d at 1458-59. Thus, a process consisting solely of mathematical operations, i.e., converting one set of numbers into another set of numbers, does not manipulate appropriate subject matter and thus cannot constitute a statutory process.

Further, M.P.E.P. section entitled “Statutory Process Claims” (page 2100-15, Column 1-2) states:

A claim that requires one or more acts to be performed defines a process. However, not all processes are statutory under 35 U.S.C. 101. *Schrader*, 22 F.3d at 296, 30 U.S.P.Q.2d at 1460. To be statutory, a claimed computer-related process must either: (A) result in a physical transformation outside the computer for which a practical application in the technological arts is either disclosed in the specification or would have been known to a skilled artisan (discussed in i) below), or (B) be limited to a practical application within the technological arts (discussed in ii) below). See *Diamond v. Diehr*, 450 U.S. at 183-84, 209 U.S.P.Q. at 6 (quoting *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1877)) (“A [statutory] process is a mode of treatment of certain materials to produce a given result. It is an act, or a series of acts, performed upon the subject-matter to be transformed and reduced to a different state or thing.... The process requires that certain things should be done with certain substances, and in a certain order; but the tools to be

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used in doing this may be of secondary consequence.”). See also *Alappat*, 33 F.3d at 1543, 31 U.S.P.Q.2d at 1556-57 (quoting *Diamond v. Diehr*, 450 U.S. at 192, 209 U.S.P.Q. at 10). See also *id.* at 1569, 31 U.S.P.Q.2d at 1578-79 (Newman, J., concurring) (“unpatentability of the principle does not defeat patentability of its practical applications”) (citing *O ’Reilly v. Morse*, 56 U.S. (15 How.) at 114-19). If a physical transformation occurs outside the computer, a disclosure that permits a skilled artisan to practice the claimed invention, i.e., to put it to a practical use, is sufficient. On the other hand, it is necessary for the claimed invention taken as a whole to produce a practical application if there is only a transformation of signals or data inside a computer or if a process merely manipulates concepts or converts one set of numbers into another.

- The computation steps/processes of claims 1-3 and 7-10 are merely “mental” processes of performing mathematical operations (manipulation of numbers) applied to a computer. The claims do not recite any concrete or tangible results; therefore the claims do not recite statutory subject matter. For example, instant claim 1 comprises the steps of overlaying data, selecting time points, adjusting data, normalizing it, and shifting it [see steps (a)-(e) of claim 1]; and applying statistics to it (claim 7). With respect to the grouping method of claims 9 and 10, the steps comprise dividing a space, counting data within spaces, assigning a “grouping factor”, and grouping the data; producing no meaningful result. See also the specification on page 23 (lines 5-16),

Embodiments of the present invention as described herein employ various process steps involving data stored in or transferred through computer systems. The manipulations performed in implementing this invention are often referred to in terms such as calculating, transforming, normalizing, adjusting, shifting, or solving. Any such terms describing the operation of this invention are machine operations. Useful machines for performing the operations of embodiments of the present invention include general or special purpose digital computers or other similar devices. In all cases, there is a distinction between the method of operations in operating a computer and the method of computation itself. Embodiments of the present invention relate to method steps for operating a computer in processing electrical or other physical signals to generate other desired physical signals.

- The computer readable medium of claims 19-22 merely stores instructions for programming a computer with a nonfunctional method. Thus the computer readable medium cannot impart functionality when employed as a computer component due to the method itself being nonfunctional data.
- The transformed profiles and grouped elution profiles of claims 25 and 26 are merely nonfunctional compilations of data. The transformed profile of claim 25 is merely a data structure; that actually will require further processing in order for tangible results to occur, merely a stepping-stone for the determination of what the profile will be useful for. The grouped

profiles of claim 26 are merely a compilation of data structures that remain without a meaningful result. The specification itself, states that the transformed profiles are merely an “adjustment of signal data [...] and time data” (p. 20, line 9).

As such claims 1-3, 7-10, 19-22, 25 and 26 are directed to non-statutory subject matter.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. § 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

- Claims 1-3, 7-10, 13-17, 19-22, 25 and 26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Factors to be considered in determining whether a disclosure would require undue experimentation have been summarized in Ex parte Forman, 230 U.S.P.Q. 546 (B.P.A.I. 1986) and reiterated by the Court of Appeals in In re Wands, 8 U.S.P.Q. 2d 1400 at 1404 (C.A.F.C. 1988). The factors to be considered in determining whether undue experimentation is required include: (1) the quantity of experimentation necessary, (2) the amount or direction presented, (3) the presence or absence of working examples, (4) the nature of the invention, (5) the state of the prior art, (6) the relative skill of those in the art, (7) the predictability or unpredictability of the art, and (8) the breadth of the claims. The Board also stated that although the level of skill in molecular biology is high, the results of experiments in genetic engineering are unpredictable. While all of these factors are considered, a sufficient amount for a *prima facie* case are discussed below.

Claims 1-3, 7-10, 13-17, 19-22, 25 and 26 are rejected under 35 U.S.C. § 112, first paragraph, lack of enablement. It is acknowledged the claimed method executes the adjusting, normalizing and shifting profiles as a means of transforming the chromatographic elution

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profiles in order to better group the resulting profiles based on shape. However, absent is the intended goal that would be achieved through the implementation of the instantly claimed method. For instance after “shifting profiles along said first axis”: 1) what does the information represent/mean of shifted profiles? 2) what distinguishes the shifted profiles from the profiles placed originally in the coordinate system?; 3) what does one do with the information? 4) what criteria(s) establishes the determination of “transformed profiles” as a “single group”, not a group at all or divided into multiples groups (instant claim 7). Further, with respect to the grouping of profiles: 1) what does a group of profiles represent/mean? 2) what distinguishes one group over another besides having a different “total value” (claim 9, line 13)? 3) once grouped what does one do with the data generated data set? Thus, one skilled in the art would not understand what the transformed profile means and what to do with the information after rearranging data of an original profile; nor would one skilled in the art understand what grouping such transformed profiles would mean and what to do with the group. Additionally, the above rejection corresponds to the system that carries out the above method (claims 13-16) and computer readable medium that would execute the method (claims 19-22). No guidance, direction, or examples are provided such that one skilled in the art would have known how to use the claimed invention. The example provided is applied to a single nucleotide polymorphism (SNP) analysis in a generic manner wherein the example demonstrated sample preparation and run with little description to the profile analysis other than stating that the program was done. Thus the example is not directed to enabling one skilled in the art to know how to perform the method steps of the profile analysis as required by the instant application. In addition, the specification states itself that its method lacks predictability as for example in its application to the analysis of SNPs: the method does not indicate a unique profile per SNP; different mutations can be grouped together just because they have the same profile shape yet are completely different, and that sometimes a mutation will not fall within a group at all. (see page 27, line 1-27).

However, in using the present invention, Applicants have unexpectedly discovered that it is not true that each profile implies a unique SNP. FIG. 4 schematically shows, in a hypothetical example, the relationship of a series of SNPs to their DMIPC elution pattern. In using the methods and devices of the instant invention as described herein, Applicants have surprisingly found that in some cases, different mutations

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can give the same elution profile. For example, the mutations shown at 180, 182, 184 all give the same pattern as shown at 186.

A DNA fragment having a new (previously unidentified) mutation, such as shown at 188, may give an elution profile that is indistinguishable from any of the existing (previously identified) profiles, such as shown at 186, 190 and 192. Another possibility is that the DNA fragment having a new mutation could yield an elution profile that is different from existing profiles.

Even upon selecting a profile that does not fall within a group, the method and instant application *fail to indicate how a distinction would be made* for the profile to be representative of a new mutation or simple one of the 'different mutations' that happened to have a different profile unlike the 'different mutations' that had the same or even similar profiles. Given the lack of descriptive working examples in the specification, and the unpredictability of utilizing the transformed chromatographic transformed profiles, the specification, as filed is not enabling for the method of using transformed profiles for the method or system of grouping such profiles as claimed. As such, claims drawn to the use of "transformed profiles" are not enabled.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- Claims 1-3, 7-10, 13-17, 19-22, 25 and 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 7, 9, 13, 19 and all claims dependent therefrom are vague and indefinite due to the lack of clarity in the action intended by the terms "transform", "transformed" and "transforming". It is unclear as what the profiles are being transformed from and what the profiles are being transformed into. Clarification is requested via clearer claim wording.

Claims 1, 13, 19 and all claims dependent therefrom are vague and indefinite due to the lack of clarity in the steps in methodology. Steps (c)-(e) are confusing as to the stepwise manner in which the method steps are intended to occur. For example, it is unclear whether steps (c) and (d) occur sequentially, in lieu of each other or simultaneously upon "each profile within said span" (claim 1, lines 15 and 19). Further, step (e) does not clearly indicate where the profiles to

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be shifted are coming from, step (c), step (d), from both steps (c) and (d) separately or sequentially (as noted above), or simply without step (c) or (d) at all.

Claims 1, 7, 8, 19 and all claims dependent therefrom are indefinite due to the lack of clarity of the claim language failing to recite a final process step, which agrees back with the preamble. The preamble states that it is “a computer implemented method for transforming a plurality of chromatographic elution profiles”, however the claim recites a final step of “shifting the profiles along said first axis such that all of the profiles intersect [...]”[claim 1, step (e)]. Claim 7 adds another steps that remains without a final result for it only provides an application to “determine whether or not to group” the profiles. Claim 8, dependent from claim 7 only provides a setup of divided space yet does not perform the determination of grouping profiles or not, merely preparing boundaries and obtaining more data. There is no indication that the elution profiles have transformed into any specific result, nor an indication that the data re-arrangements have completed transformation. It appears that the profiles would require further processing due to the lack of a final active step that demonstrates a final transformed plurality of chromatographic elution profiles. While minor details are not required in method/process claims, at least the basic step must be recited in a positive, active fashion. The claim does not set forth the conditions/state when the profiles are transformed. Clarification of the metes and bounds of the claim is requested via clearer claim wording. As such claims

Claim 9 and all claims dependent therefrom are vague and indefinite due to the lack of clarity of the phrase “for each boundary line, numbered 1 through i ” line 31. It is unclear what is intended to be representative of “ i ”. It is assumed that i is intended to be an integer, however clarification via clearer claim wording is requested. Please note line 6 as well, wherein “ n ” is indefinite due to “ i ” lacking clarity as described above.

Claims 19, 21 and all claims dependent therefrom are vague and indefinite due to the lack of clarity of the phrase “the instructions being capable of programming” line 2. The metes and bounds of the parameters that describe the ability or capability to perform an action such as programming are unclear.

Claims 19, 21 and all claims dependent therefrom are vague and indefinite due to the lack of clarity of that which is contained on the computer readable medium. It is unclear if the instructions stored upon the instant medium are limited to programming another computer to

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perform a method (not limited to the one described), or do the instructions contain the required method steps to perform the instant method, just as a software program would be specific for the method it was performing. Clarification is requested via clearer claim wording.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

- Claims 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robbat (US Patent 5,970,804; 26-Oct-1999).

The computer readable medium and its method of use of Robbat (abstract) differs from the claimed invention only in the content the method the computer to be programmed performs while not in means of programming a computer. In addition, the information contained in the

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instructions doesn't carry patentable weight with respect to the novelty/obviousness of the computer readable medium. As per the specification itself, "[t]he media and program instructions may be those specially designed and constructed for the purposes of the present invention, or they may be of the kind well known and available to those having skill in the computer software arts", it would have been obvious to store instructions for programming any program to be executed on the computer. The MPEP states in 2106 section VI:

As is the case for inventions in any field of technology, assessment of a claimed computer-related invention for compliance with 35 U.S.C. 102 and 103 begins with a comparison of the claimed subject matter to what is known in the prior art. If no differences are found between the claimed invention and the prior art, the claimed invention lacks novelty and is to be rejected by Office personnel under 35 U.S.C. 102. Once distinctions are identified between the claimed invention and the prior art, those distinctions must be assessed and resolved in light of the knowledge possessed by a person of ordinary skill in the art. Against this backdrop, one must determine whether the invention would have been obvious at the time the invention was made. If not, the claimed invention satisfies 35 U.S.C. 103. Factors and considerations dictated by law governing 35 U.S.C. 103 apply without modification to computer-related inventions. If the difference between the prior art and the claimed invention is limited to descriptive material stored on or employed by a machine, Office personnel must determine whether the descriptive material is functional descriptive material or nonfunctional descriptive material, as described supra in sections IV.B.1(a) and IV. B.1(b). Functional descriptive material is a limitation in the claim and must be considered and addressed in assessing patentability under 35 U.S.C. 103. Thus, a rejection of the claim as a whole under 35 U.S.C. 103 is inappropriate unless the functional descriptive material would have been suggested by the prior art. > In re Dembiczak, 175 F.3d 994, 1000, 50 USPQ2d 1614, 1618 (Fed. Cir. 1999).< Nonfunctional descriptive material cannot render nonobvious an invention that would have otherwise been obvious. Cf. In re Gulack, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983) (when descriptive material is not functionally related to the substrate, the descriptive material will not distinguish the invention from the prior art in terms of patentability).

Common situations involving nonfunctional descriptive material are:

- a computer-readable storage medium that differs from the prior art solely with respect to nonfunctional descriptive material, such as music or a literary work, encoded on the medium,
 - a computer that differs from the prior art solely with respect to nonfunctional descriptive material that cannot alter how the machine functions (i.e., the descriptive material does not reconfigure the computer), or
 - a process that differs from the prior art only with respect to nonfunctional descriptive material that cannot alter how the process steps are to be performed to achieve the utility of the invention.
- Thus, if the prior art suggests storing a song on a disk, merely choosing a particular song to store on the disk would be presumed to be well within the level of ordinary skill in the art at the time the invention was made. The difference between the prior art and the claimed invention is simply a rearrangement of nonfunctional descriptive material.

Claim Objections

Claim 16 is objected to for reciting "the method of Claim 15" wherein claim 15 is a system and not a method. Appropriate correction is required.

Conclusion

- Claims 1-3, 7-10, 13-16, 19-22, 25 and 26 have been examined.
- Claims 1-3, 7-10, 19-22, 25 and 26 are rejected under 35 U.S.C. 101, non-statutory subject matter.
- Claims 1-3, 7-10, 13-16, 19-22, 25 and 26 are rejected under 35 U.S.C. 112, first paragraph – lack of enablement.
- Claims 1-3, 7-10, 13-16, 19-22, 25 and 26 are rejected under 35 U.S.C. 112, second paragraph.
- Claims 19-22 are rejected under 35 U.S.C. 103 as being unpatentable over Robbat.
- Claim 16 is objected.

No claim is allowed.

Inquiries

Papers related to this application may be submitted to Technical Center 1600 by facsimile transmission. Papers should be faxed to Technical Center 1600 via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform with the notices published in the Official Gazette, 1096 OG 30 (November 15, 1988), 1156 OG 61 (November 16, 1993), and 1157 OG 94 (December 28, 1993) (See 37 CFR § 1.6(d)). The CM1 Fax Center number is (703) 308-4242.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monika B. Sheinberg, whose telephone number is (703) 306-0511. The examiner can normally be reached on Monday-Friday from 9 A.M to 5 P.M. If attempts to reach the examiner by telephone are unsuccessful, the primary examiner in charge of the prosecution of this case, Jehanne Souaya, can be reached at 703-308-6565. If attempts to reach the examiners are unsuccessful, the examiner's supervisor, Gary Benzion, can be reached on (703) 308-1119.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Patent Analyst, Chantae Dessau, whose telephone number is (703) 605-1237, or to the Technical Center receptionist whose telephone number is (703) 308-0196.

October 6, 2003
Monika B. Sheinberg
Art Unit 1634

MB

JEHANNE SOUAYA
PATENT EXAMINER
Primary

Jehanne Souaya
10/6/03